AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1.-7. (Cancelled)

8. (Currently Amended) A method of drilling a well in a formation with shale comprising:

drilling using a drilling fluid comprising:

an aqueous fluid;

a first reactant which is a soluble monomer, oligomer, or polymer with exposed ketone, aldehyde, or aldol groups or with groups which can be shifted to ketone or aldehyde functionality, selected from the group consisting of: an aldehyde, a ketone, a synthetic polymer, branched starch, unbranched starch, dextrin, methylglucoside, substituted methylglucoside, corn syrup, malto-dextrin, molasses, sugar, cellulose, reducing sugars, polymerized reducing sugars, and mixtures and combinations thereof; and

a second reactant which is a primary amine, diamine, or polyamine, selected from the group consisting of hexamethylene diamine, ethoxylated alkyl ether amine, propoxylated alkyl ether amine, polyoxy propylene diamine, and combinations thereof, which by condensation reaction forms a semi-soluble or precipitated filming product with the first reactant; to create an osmotic membrane on the shale formation.

9. (Currently Amended) A method of increasing shale formation stability with a water based drilling fluid comprising:

delivering to the shale formation a drilling fluid comprising:

an aqueous fluid;

a first reactant which is a soluble monomer, oligomer, or polymer with exposed ketone, aldehyde, or aldol groups or with groups which can be shifted to ketone or aldehyde functionality, selected from the group consisting of: an aldehyde, a ketone, a synthetic polymer, branched starch, unbranched starch, dextrin, methylglucoside, substituted methylglucoside, corn syrup,

malto-dextrin, molasses, sugar, cellulose, reducing sugars, polymerized reducing sugars, and mixtures and combinations thereof; and

a second reactant which is a primary amine, diamine, or polyamine, selected from the group consisting of hexamethylene diamine, ethoxylated alkyl ether amine, propoxylated alkyl ether amine, polyoxy propylene diamine, and combinations thereof, which by condensation reaction forms a semi-soluble or precipitated filming product with the first reactant; to create an osmotic membrane on the shale formation.

10. (Currently Amended) A method of generating an osmotic membrane over a shale formation comprising:

delivering to the shale formation a drilling fluid comprising:

an aqueous fluid;

a first reactant which is a soluble monomer, oligomer, or polymer with exposed ketone, aldehyde, or aldol groups or with groups which can be shifted to ketone or aldehyde functionality, selected from the group consisting of: an aldehyde, a ketone, a synthetic polymer, branched starch, unbranched starch, dextrin, methylglucoside, substituted methylglucoside, corn syrup, malto-dextrin, molasses, sugar, cellulose, reducing sugars, polymerized reducing sugars, and mixtures and combinations thereof; and

a second reactant which is a primary amine, diamine, or polyamine, selected from the group consisting of hexamethylene diamine, ethoxylated alkyl ether amine, propoxylated alkyl ether amine, polyoxy propylene diamine, and combinations thereof, which by condensation reaction forms a semi-soluble or precipitated filming product with the first reactant; to create an osmotic membrane on the shale formation.